JOURNAL OF ORGANOMETALLIC CHEMISTRY VOLUME 450, NUMBERS 1–2, MAY 18, 1993

# Contents

**Regular Papers**

Stereoselective propene polymerization at a metallocene/alumoxane catalyst derived from the chirally-substituted "*meso*-like" (*p-R,p-S*)bis[1-(neoisopinocamphyl)-4,5,6,7-tetrahydroindenyl]zirconium dichloride
G. Erker, M. Aulbach (Münster, Germany), C. Krüger and S. Werner (Mülheim a.d. Ruhr, Germany) (Rec'd September 9, 1992) .... 1

Reactivity of tri- and tetra-nuclear ethylidyne cyclopentadienylcobalt clusters towards protonic acids
H. Wadepohl and H. Pritzkow (Heidelberg, Germany) (Rec'd August 21, 1992) .... 9

Stereo and regioselectivity in the phenylation of cationic allylpalladium(II) $\alpha$-diimine complexes by tetraphenylborate anion
B. Crociani, S. Antonaroli (Roma, Italy), F. Di Bianca and A. Fontana (Palermo, Italy) (Rec'd July 17, 1992) .... 21

A facile synthetic route to ($\eta^5$-benzoylcyclopentadienyl)metal compounds
S.S. Jones, M.D. Rausch (Amherst, MA, USA) and T.E. Bitterwolf (Moscow, ID, USA) (Rec'd July 17, 1992; in rev'd form September 28, 1992) .... 27

Etude de la régiosélectivité de l'action des organozinciques sur les $\alpha$-iminoesters issus de 2-amino ou 3-aminoalcools. I. Synthèse d'$\alpha$-aminoesters polyfonctionnels
G. Courtois et L. Miginiac (Poitiers, France) (Reçu le 24 août 1992; révisé le 5 octobre 1992) .... 33

Complexes derived from 4-amino-3-methyl-5-thione-1,2,4-triazole and monoorganomercury moieties. Crystal structure of (4-amino-5-mercapto-3-methyl-1,2,4-triazolato)methylmercury(II)
J.M. Varela, A. Macías, J.S. Casas and J. Sordo (Santiago de Compostela, Spain) (Rec'd August 14, 1992) .... 41

Convenient method for the preparation of catecholborane and promotion of the formation of alkenyl catecholborane using $BH_3$ complexes
Y. Suseela and M. Periasamy (Hyderabad, India) (Rec'd September 23, 1992) .... 47

Über dimere Dimethylmetall-bis(trimethylgermyl)amide des Aluminiums, Galliums und Indiums
M. Trapp, H.-D. Hausen, G. Weckler und J. Weidlein (Stuttgart, Deutschland) (Eing. den 18. September 1992) .... 53

Molecular structure of *meso*-tetraphenylporphyrinatothallium(III) cyanide: Tl(tpp)(CN)
W.-B. Lee, S.-C. Suen, T.-T. Jong, F.-E. Hong, J.-H. Chen (Taichung, Taiwan, ROC), H.-J. Lin (I-Lan, Taiwan, ROC) and L.-P. Hwang (Taipei, Taiwan, ROC) (Rec'd July 31, 1992; in rev'd form October 17, 1992) .... 63

Siliciumverbindungen mit starken intramolekularen sterischen Wechselwirkungen. XLIX. Disilane und ein Disilen mit unsymmetrischer Substitution an den Siliciumatomen
M. Weidenbruch, A. Pellmann, Y. Pan, S. Pohl, W. Saak (Oldenburg, Deutschland) und H. Marsmann (Paderborn, Deutschland) (Eingegangen den 1. Oktober 1992) .... 67

Synthesis of siloxanes. XXII. Synthesis and crystal structure of 2-t-butoxy-2,4,6-trimethyl-4,6-diphenyl-(2$\alpha$,4$\alpha$,6$\alpha$)-cyclotrisiloxane
R. Gewald, U. Scheim, K. Rühlmann (Dresden, Germany), H. Goesman and D. Fenske (Karlsruhe, Germany) (Rec'd September 21, 1992) .... 73

Darstellung und spektroskopische Charakterisierung verzweigter funktioneller Hexasilangerüste
H. Stüger und P. Lassacher (Graz, Austria) (Eingegangen den 28. September 1992) .... 79

Stability of the silicon–ruthenium bond in the presence of a strong nucleophile. Phase sensitive $^1$H NMR COSY and crystal structure of $Ru(CO)_2(NH_2CH_2C_6H_5)_2(Si(C_6H_5)(CH_3)_2)I$
B.J. Rappoli, K.J. McGrath, C.F. George and J.C. Cooper (Washington, DC, USA) (Rec'd February 11, 1992; in rev'd form October 5, 1992) .... 85

Chemie der schweren Carben-Analogen $R_2M$, M = Si, Ge, Sn. XVIII. Eine unerwartete Ge–C-Spaltung des als Dimethylgermylen-Speicher dienenden 7,7-Dimethyl-7-germanorbornadiens
B. Klein und W.P. Neumann (Dortmund, Deutschland) (Eingegangen den 31. August 1992) .... 91

Synthesis and thermal decomposition of substituted [2-(acyloxy)alkyl]diorganotins compounds, $Bu_2Sn(X)CH_2CHR^1OCOR^2$ (X = halogen, 2,4-pentanedionate, or OCOR), potential sources of organotin catalysts
B. Jousseaume, V. Guillou, N. Noiret, M. Pereyre (Talence, France) and J.-M. Francès (Saint-Fons, France) (Rec'd June 22, 1992) ... 97

Bis(2-bromoethyl)selenium dibromide as the selenium-introducing reagent: One-pot preparation of 2,5-bis(alkoxymethyl)tetrahydroselenophenes by the cyclization of 1,5-hexadiene
Y. Takanohashi, N. Tabata, T. Tanase and S. Akabori (Chiba, Japan) (Rec'd July 31, 1992; in rev'd form October 23, 1992) ..... 103

Synthesis and characterisation of new 2-bromovinyl selenides and their platinum group metal complexes
P.K. Khanna and C.P. Morley (Swansea, UK) (Rec'd September 3, 1992) .... 109

Tetrahedral *versus* square planar arrangement of cyclopentadienyl ligands in bimetallic organosamarium complexes. X-ray crystal structure of $[(C_5H_4Me)_2(THF)Sm(\mu\text{-}Cl)]_2$
W.J. Evans, R.A. Keyer and J.W. Ziller (Irvine, CA, USA) (Rec'd July 21, 1992; in rev'd form October 12, 1992) .... 115

Synthesis and molecular structure of $(CH_3Cp)_2Yb \cdot DME$ and its catalytic activity for the polymerization of methyl methacrylate
T. Jiang, Q. Shen, Y. Lin and S. Jin (Changchun, China) (Rec'd July 24, 1992; in rev'd form October 23, 1992) .... 121

Isodicyclopentadienes and related molecules. LVII. Solid state structural studies of the diastereomeric *exo*- and *endo*-($\eta^5$-cyclopentadienyl)($\eta^5$-(1*S*,8*R*)-9,9-dimethyltricyclo[6.1.1.0$^{2,6}$]deca-2,5-dienyl)dichlorotitaniums and a stereopure *exo*-($\eta^5$-pentamethyl-cyclopentadienyl) congener
R.D. Rogers (DeKalb, IL, USA), M.R. Sivik and L.A. Paquette (Columbus, OH, USA) (Rec'd July 21, 1992; in rev'd form September 25, 1992) .... 125

Carbonylation of 2-bornenyl(methyl)zirconocene
G. Erker, R. Noe, M. Albrecht (Münster, Germany) and A.L. Rheingold (Newark, DE, USA) (Rec'd August 24, 1992) ..... 137
Phenylbis(2-pyridyl)phosphine: *P- vs. N,N'*-coordination in carbonylmolybdenum-(0) and -(II) complexes
P. Espinet, P. Gómez-Elipe and F. Villafañe (Valladolid, Spain) (Rec'd August 27, 1992) ..... 145
Rearrangement of cyclooctyne to 1,2-cyclooctadiene within the coordination sphere of $CpMn(CO)_2$
S.M. Coughlan and G.K. Yang (Los Angeles, CA, USA) (Rec'd July 27, 1992; in rev'd form September 21, 1992) ..... 151
Structures of propionaldehyde, butyraldehyde, and pivalaldehyde complexes of the chiral rhenium fragment $[(\eta^5\text{-}C_5H_5)Re(NO)(PPh_3)]^+$
D.P. Klein, N. Quirós Méndez, J.W. Seyler, A.M. Arif and J.A. Gladysz (Salt Lake City, UT, USA) (Rec'd July 27, 1992; in rev'd form October 5, 1992) ..... 157
Electrochemical and chemical generation of a mixed-valent organorhenium oxide and its subsequent aggregation
R.W. Albach, U. Küsthardt, J. Behm, B. Ebert (Garching, Germany), M.-H. Delville and D. Astruc (Talence, France) (Rec'd August 7, 1992) ..... 165
Crystal structure of $Fe(\eta^6\text{-}C_5H_5BCMe_3)_2$, a "problem structure"
M.R. Churchill and R.F. See (Buffalo, NY, USA) (Rec'd June 16, 1992; in rev'd form October 5, 1992) ..... 171
Ferrocene derivatives. XXVIII. The metallation of phenylazoferrocene and the synthesis of phenylazocyclopentadienyl derivatives of other metals
G.R. Knox, P.L. Pauson and D. Willison (Glasgow, UK) (Rec'd September 7, 1992) ..... 177
Ferrocene derivatives, LXXI; Stereochemistry of metallocenes, LVI. Synthesis and structure of optically active ferrocenylaminoalcohols
H. Wally, C. Kratky, W. Weissensteiner, M. Widhalm and K. Schlögl (Wien, Graz, Austria) (Rec'd September 9, 1992) ..... 185
The redox behaviour of ferrocene derivatives. III. Ferrocenylacyl complexes $(\eta^5\text{-}C_5H_5)\,Fe(\eta^5\text{-}C_5H_4\text{–}COER_3)$, E = C, Si or Ge; R = Me or Ph
P. Zanello, G. Opromolla (Siena, Italy), L. Pardi (Firenze, Italy), K.H. Pannell and H.K. Sharma (El Paso, TX, USA) (Rec'd August 17, 1992) ..... 193
Ruthenium complex-catalyzed allylic alkylation of carbonucleophiles with allylic carbonates
S.-W. Zhang, T.-a. Mitsudo, T. Kondo and Y. Watanabe (Kyoto, Japan) (Rec'd August 25, 1992; in rev'd form October 17, 1992) .... 197
Cyclopentadienyl-ruthenium and -osmium chemistry. XXXIX. Syntheses of novel alkynyl-ruthenium complexes. X-Ray structures of two forms of $\{Ru(PPh_3)_2(\eta\text{-}C_5H_5)\}_2(\mu\text{-}C_4)$ and of $Ru\{C{\equiv}CC(O)Me\}(PPh_3)_2(\eta\text{-}C_5H_5)$
M.I. Bruce, P. Hinterding, E.R.T. Tiekink (Adelaide, S.A., Australia), B.W. Skelton and A.H. White (Nedlands, W.A., Australia) (Rec'd September 16, 1992) ..... 209
Formation of the unusual alkynyl carboxamide complex, $C_2H_5N(H)C(O)C{\equiv}C[Co_2(CO)_6]CCo_3(CO)_9$
G.H. Worth, B.H. Robinson and J. Simpson (Dunedin, New Zealand) (Rec'd September 24, 1992) ..... 219
Hydroformylation and hydrocarbethoxylation of 1,2-dicarbethoxy-1,2,3,6-tetrahydropyridazine and 1,2-dicarbethoxy-1,2,3,4-tetrahydropyridazine
G. Menchi (Firenze, Italy), S. Paganelli, U. Matteoli, A. Scrivanti and C. Botteghi (Venezia, Italy) (Rec'd July 17, 1992) ..... 229
The crystal and molecular structure of bis(indazol-1-yl)pyridin-2'-ylmethane (BIPM) and $[Rh(BIPM)(NBD)]PF_6$
M.C. López Gallego-Preciado, P. Ballesteros, R.M. Claramunt, M. Cano, J.V. Heras, E. Pinilla and A. Monge (Madrid, Spain) (Rec'd July 10, 1992) ..... 237
$^{31}P$ and $^{13}C$ NMR investigation of the system tetracarbonyldi-$\mu$-chlorodirhodium(I)–tertiary phosphine
E. Rotondo, G. Battaglia, G. Giordano and F.P. Cusmano (Messina, Italy) (Rec'd July 1, 1992) ..... 245
Ethylene hydrogenation by the hydride alkoxide species $Ir(H)_2(OCH_2CF_3)(P^tBu_2Ph)_2$. Ethylene-induced reductive elimination of alcohol from $Ir^{III}$
B. Hauger and K.G. Caulton (Bloomington, IN, USA) (Rec'd August 18, 1992; in rev'd form October 12, 1992) ..... 253
Steric effects of the 2-(diphenylphosphino)pyridine bridging ligand in the synthesis of binuclear palladium(II) complexes
G. De Munno (Cosenza, Italy), G. Bruno, C.G. Arena, D. Drommi and F. Faraone (Messina, Italy) (Rec'd July 10, 1992) ..... 263
Tetra-*ortho*-substituierte *cis*-Bis(phenyl)platin(II)-Verbindungen: Synthesen und photochemisches Verhalten
H.-A. Brune, J. Lerche, G. Schmidtberg und A. Baur (Ulm/Donau, Deutschland) (Eingegangen den 28. September 1992) ..... 269

**Preliminary Communications**

Intramolekulare Basenkoordination je nach Bedarf: Der 1-(Dimethylaminoethyl)-2,3,4,5-tetramethylcyclopentadienyl-Ligand in der Komplexchemie von s-, p-, d- und f-Block-Elementen
P. Jutzi, J. Dahlhaus und M.O. Kristen (Bielefeld, Deutschland) (Eingegangen den 15. Dezember 1992) ..... C1
Reaktive Arsen-Heterocyclen. II. 3-Arsolene als Arsiniden-Quelle
W.A. Schenk und M. Stubbe (Würzburg, Deutschland) (Eing. den 14. Dezember 1992) ..... C4
Carbyne-fluoro complexes of rhenium. Single-pot synthesis of *trans*-$[ReF({\equiv}CCH_2R)(Ph_2PCH_2CH_2PPh_2)_2][BF_4]$
S.S.P.R. Almeida, J.J.R. Fraústo Da Silva and A.J.L. Pombeiro (Lisbon, Portugal) (Rec'd November 30, 1992) ..... C7
A new route to complexes containing the tetracarbon ($C_4$) ligand
C.J. Adams, M.I. Bruce, B.W. Skelton and A.H. White (Adelaide, S.A., Nedlands, W.A., Australia) (Rec'd December 18, 1992) ..... C9
Reaction of $[(\mu\text{-}H)Os_3(CO)_{11}]^-$ anion with dioxygen
C.J. Cathey, Brian, F.G. Johnson, J. Lewis, P.R. Raithby and W.T. Wong (Cambridge, UK) (Rec'd November 6, 1992) ..... C12
Cyclometallated derivatives of palladium(II) and platinum(II) derived from 6-t-butyl-2,2'-bipyridine
S. Stoccoro, G. Chelucci, M.A. Cinellu, A. Zucca and G. Minghetti (Sassari, Italy) (Rec'd October 26, 1992) ..... C15

**Announcement of Keywords for 1994** ..... C17

**Author Index** ..... C19

**Subject Index** ..... C21

**Cumulative Author Index Volumes 426–450** ..... C25

**Cumulative Subject Index Volumes 426–450** ..... C41